

THER-4-1000000. Ye.N., doktor Med.nauk: GUSMAN, B.S., kand.med.nauk;
 BIZRGOV V.M., B.S., kand.med.nauk (Mskva)

V Conference of the Morphologists of the German Democratic Republic. Arkh. nat. 27 no. 10. 92-94 1950.

(MIRA 18710)

TORUBAROV, Vladimir Alekseyevich; ANDREYEV, Vitaliy Sergeyevich;
BEZPROZVANNYY, Boris Semenovich; VATMAKHIN, U.A., red.

[High-frequency noncontacting titration; transcription of
the lecture delivered at the Leningrad House for Scientific
and Technical Propaganda in September 1963] Vysokochastotnoe
beskontaktnoe titrovaniye; stenogramma lektsii, pročitannoi
v sentiabre 1963 g. Leningrad, 1964. 29 p. (MIRA 17:9)

BEZPROSVANYAY, G. K.

A. G. Solovayev, and G. K. Bezprosvanyayev, Obezrukovaniye litograficheskikh tochnikov (Equipment of Litho-Offset Shops). "Iskusstvo" Press.

The booklet describes all presses, all types of casting equipment of offset printing shops and enterprises, and describes the principal models in detail, including all mechanisms of the machines, and their interrelation with each of the types of printing equipment. The booklet also contains a section on the operation and maintenance of equipment, giving basic information on tending and repairing machines.

The booklet is intended for students of polygraphic technical schools.

SO: Sovetskaya kniga (Soviet Books), No. 126, 1953, Moscow, (U-6472)

BEZPYATKIN, V.P.

Determining the parameters of vibration in the operation of a
cable drilling rig. Trudy MGRI 30:74-80 '56. (MLRA 9:11)
(Boring machinery--Vibration)

CA

PROCESSING AND PROPERTIES INDEX

23

Checking a regenerative soda oven of a straw-cellulose plant. A. S. ISKRAKOV,
G. N. BISHAKOV AND N. V. SUSHAKOV. *Lesnyi Tekhnol.* 1929, No
8, 48 M. An approximative heat balance of the plant was made. Various defects
were discussed and remedies suggested. A. A. BUCHNIN

AS 6-11 A METALLURGICAL LITERATURE CLASSIFICATION

1304 519 0319

147380

147380

147380

CA 21

PROCESSING AND PROPERTIES INDEX

Taking samples and preparing the same from solid mineral fuel. O. N. BRE-
~~MANIKUL~~ *Izvestiya Teplo-Tekhn. Inst.* 1979, No. 9, 35-40. - If large quantities of
slag are present in coal, samples of more than 200 kg. per car load should be taken.
The same applies to coke delivered in large lumps. The samples are then broken up,
ground and the analysis is carried out by the usual methods. A. A. BOERTLING

ASD S.A. METALLURGICAL LITERATURE CLASSIFICATION

REGIONAL INDEX

RESEARCH INDEX

RESEARCH INDEX

Cd

Determination of specific gravity of gas mixtures. G.

I.N. Betsedyakh. Zvezdnyye Izv. 1963, No. 10, 34
41.—Review of method.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

BOOK NUMBER
SUBJECT ONE TWO SIX

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSES AND PROPERTIES INDEX																			
21 Composition of the material and thermal balances of coke ovens. G. N. Bezguletskii. <i>Coke and Chem. (U. S. S. R.)</i> 1934, No. 3, 7-20. A detailed description of the testing of Otto coke ovens. A. Pestoff																			
ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND CODES										3RD AND 4TH CODES									

ca

21

Low-temperature carbonization of the LOMSKOY coal in the Peanch furnace in the Redkineh plant. G. N. BEZINA. *Akim. Tverdoga Toplita 7*, 388 413 (1935).
Leninsk coal was satisfactorily carbonized at low temp. in the Peanch oven with internal heating furnace. The coal should be of 12-50 mm. size to prevent undue resistance to the passage of hot gases. The yield of tar may reach 80-5% of that obtained in a lab. distn. The main portion of light fractions of tar passed into the gas. To prevent partial cracking, which occurs in the recuperator at 600-700°, all tar and volatile fractions should be sepl. from the gas before it enters the recuperator. Ceramic recuperators should be avoided because of their porosity, which makes regulation of the process difficult. The productivity of the furnace may be taken as 500 kg./hr. per sq. m. of the cross section of shaft. Construction details of the Peanch furnace and exptl. data are given.
A. A. Podgorny

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

Experimental low-temperature carbonization of the
Cheremkhovo coal. G. N. Ugrasetskii. *Khim. Tver-
dого Topliva* 8, 757-760 (1937).—Results are tabulated
of expts. in a rotating drum similar to the Tixsen furnace
and in the Pinch furnace provided with an inner heating
system at 558-542 and 602-31°, resp. Eight references.
A. A. Podgorny

BEZRADETSKIY, G. N.

USSR

Experimental low-temperature carbonization of Siberia
semibituminous coals in an internally heated shaft car-
bonizer. G. N. Bezradetskii, A. V. Moroz, and D. A.
Muraviev. *Izvestiya Vsesoyuz. Nauch.-Issled. Inst.*
Khim. i Tekhn. Uglei i Gasa (V) 11, 81-84 (1948).
A Pintsch carbonizer was used w. satisfactory results.
The semicoke retained 5-9% vola. matter. The total
tar and light ends were produced in 0-20% of the lab.
value. The capacity was 200-250 kg of the lab.
shaft semicoke per 172 kg of coke. The Pintsch carbonizer was not satisfactory for the carbon-
ization of coking coal. W. M. Sternberg

LFH

BEZRADETSKIY, G. N.

Chem Alcohols from hydrocarbon synthesis reaction waters.
G. N. Bezradetskii and E. L. Melent'eva. Trudy Vsesoyuzn.
Nauch.-Issledovatel. Inst. Khim., Zhidkogo Topliva i
Gaza 1954, No. 6, 90-104; Referat. Zhur., Khim. 1955, No.
2808.—The nature and quantities of alcs. found in the
 reaction water from the synthesis of hydrocarbons from CO
 and H over Fe, Fe-Cu, and industrial Co catalyst were
 studied. To ext. the alcs. the reaction waters were neu-
 tralized with a 10% alk. soln. to a neutral or weakly alk.
 reaction, and were then concd. by distn. The concd. neu-
 tral hydroxy compds. were then fractionated in a highly
 efficient column with 59 theoretical plates, tapping off in-
 dividual alcs. A process is outlined for the concn. of the
 reaction water in a continuously operating installation.
 To obtain a 70% alc. concentrate the steam should be 96°
 and the reaction water fed at a rate of 0.37-0.44 ml./min./sq.
 cm. The n_D of the alc. concentrates, i.e. raw alcs., is
 1.380-1.388. The fractionation in the column yielded
 MeOH, EtOH, PrOH, AmOH, and higher alcs. The
 alcs. were of tech. grade and required further purification.
 Six samples of reaction waters obtained by carrying out the
 synthesis reaction over various catalysts yielded the follow-
 ing alcs.: Fe catalyst MeOH 2.0-7.0, EtOH 48-62, PrOH
 7.0-14.0, and higher alcs. 5-13%; Fe-Cu catalyst MeOH
 13.0-25.0, EtOH 32-35, PrOH 8-15, and higher alcs.
 8-10%; Co catalyst MeOH 13.6, EtOH 35, PrOH 12.8,
 and higher alcs. 19.8%.

M. Horsch

PM

BELRAJETS'KIY, G.N.

4

USSR .

✓ 1276. PURIFICATION OF TAR WATERS, FROM LOW TEMPERATURE CARBONISATION,
COAL GASIFICATION AND TAR HYDROGENATION, WITH OIL SOLVENTS.
Boroditskiy, G.M. and Rafed'eva, D.V. (Trud. vsesoyuz. nauch.-issled.
Inst. Iskusst. zhid. Topliva i Gaz (Proc. All Union Sci.-Res. Inst.
Synthetic Liquid Fuel and Gas), 1954, (6), 114-129; see abstr. in Ref. Zh.
Khim. (Ref. J. Chem., Moscow), 1955, (2), 2762).

[Handwritten signature]

BEZRIDA, L.A.

Using the IZSh-52 instrument in determining break spots of cores in cables. Bezop.truda v prom. 2 no.5:33 My '58. (MIRA 11:4)

1. Uchaskotyy inspektor Bogurayevskoy reyonnoy gornotekhnicheskoy inspeksii.

(Electric instruments) (Cables)

LIVSHITS, A.K.; BEZRODNAYA, R.M.

Speed of the passage of water and solids into the flotation
froth product. TSvet. met. 34 no.11:15-17 N '61. (MIRA 14:11)
(Flotation)

BALASHEV, V.N.; BEZRODNOV, A.N.; ZYZYKIN, N.V.

Results of tests using the gamma-gamma method to determine the antimony content of electrolyte and pulp. Uch. zap. SAIGIMSd
no.8:107-113 '62. (MIRA 17:1)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent.

1. BEZHODNOV, N. A.
2. USSR (600)
4. Kara-Kalpak-Agriculture
7. On the history of collective-farm development in the Kara-Kalpak A.S. S. R.
Trudy Inst. ekon. AN Uz. SSSR no. 3, 1952.
9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

BEZRODNOY, N. A.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr. 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
<u>Bezrodnoy, N. A.</u>	"Cotton Growing" Textbook	Ministry of Agriculture Uzbek SSR

SO: W-30604, 7 July 1954

BALASHEV, N.N., redaktor; BEZRODNOV, N.A., redaktor

[Organization of vegetable gardening on collective farms] Organizatsiia
ovoshchevodstva v kolkhozakh. Tashkent, Gos. izd-vo Uzbekskoi SSR,
1955. 247 p. (MLRA 9:12)

(Uzbekistan--Vegetable gardening)

BEZRODNOV, Nikolay Aleksandrovich; USMANOV, Saidmakhdud Nogmanovich;
SOLYANOVA, N., red.; BAKHTIYAROV, A., tekhn.red.

[Accumulation of general funds on collective farms of Uzbekistan]
Nakoplenie obshchestvennykh fondov v kolkhovakh Uzbekistana.
Tashkent, Gos. izd-vo Uzbekskoi SSR, 1958. 55 p. (MIRA 11:5)
(Uzbekistan—Collective farms)

AYRUMOV, A.M., kand.ekonom.nauk, otv.red.; BEZRODNOV, N.A., kand.ekonom.
nauk, otv.red.; SAPIL'NIKOV, N.G., kand.ekonom.nauk, otv.red.;
RAYEVSKIY, L.A., red.; SALAKHUTDINOVA, A., tekhn.red.

[Economic and organizational aspects of socialist agricultural
enterprises; textbook] Ekonomika i organizatsiya sotsialisti-
cheskikh sel'skokhoziaistvennykh predpriyatii; uchebnoe poso-
bie. Otv.red. A.M.Airumov, N.A.Bezrodnov, N.G.Sapil'nikov.
Tashkent, Gos.izd-vo Uzbekskoi SSR, 1960. 189 p.

(MIRA 14:2)

(Uzbekistan--Agriculture)

BEZRODNOV, V. A.; N. G. SAPIL'NIKOV; AYRUMOV, A. M.

The Economics and Organization of Socialist Agricultural Enterprises,
Responsible Editors: A. M. Ayrumov, V. A. Bezrodnov, and N. G. Sapil'nikov.
Washington, U. S. JPRS, 1961

145 p. (JPRS: 8934;CSO: 6287-D/A)

Translated from the Original Russian.

ANDROSOVA, S.O.; APROSINA, Z.G.; ~~BEZRODNYKH, A.A.~~; VERMEL', A.Ye.;
VINOGRADOVA, O.M.; LEVITSKIY, E.R.; MAKARENKO, I.I.;
MAKSHANOV, D.A.; POIZANTSEVA, L.R.; SUMAROKOV, A.V.;
SHATALOV, N.N.; SHAPIRO, L.A.; TAREYEV, Ye.M., prof.,
red.; MEL'NIKOV, Ye.B., red.

[Occupational diseases] Professional'nye bolezni; ucheb-
noe posobie dlia studentov sanitarno-gigienicheskikh fa-
kul'tetov. Pod red. E.M.Tareeva. Moskva, 1963 p. 223 p.

(MIRA 16:6)

1. Moscow. Pervyy meditsinskiy institut. 2. AMN SSSR (for
Tareyev).

(OCCUPATIONAL DISEASES)

BEMRODNYKH, A.A.

Ascorbic acid deficiency in patients with occupational pulmonary pathology. Trudy 1-go MMI 28:114-127 '64.

(MIRA 17:11)

1. Kafedra obshchey terapii i professional'nykh zabolevaniy
(zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tarayev)
sanitarno-gigiyenicheskogo fakul'teta 1-go Moskovskogo ordena
Lenina meditsinskogo instituta imeni Sechenova.

SEVEROVA, Ye.Ya., kand. med. nauk; BEZRODNYKH, A.A.,

Total pneumothorax in uncomplicated silicosis. Trudy 1-go MMI 28:
128-133 '64.

Lung cancer in silicosis. Ibid.:134-138

(MIRA 17:11)

1. Kafedra obshchey terapii i professional'nykh zabolevaniy
(zav. - deystvitel'nyy chlen AMN SSSR prof. Ye.M. Tareyev)
sanitarno-gigiyenicheskogo fakul'teta 1-go Moskovskogo ordena
Lenina meditsinskogo instituta imeni Sechenova.

ZHUKOVSKIY, B.D., kand. tekhn. nauk; FIL'BERSHTEYN, L.I., kand. tekhn. nauk;
MIZERA, V.I., inzh.; PETRUNIN, Ye.P., inzh.; TATSYUK, G.Z., inzh.;
Prinimali uchastiye: MATLAKHOV, L.I.; NECHIPORENKO, M.I.; DUPLIY,
G.D.; GAPICH, V.I.; FATEYEVA, A.F.; DYN'KO, N.M.; LUGOVENKO, I.P.;
DEM'YANOV, B.M.; POSTIL, I.S.; BEZRODNYKH, I.Ya.

Investigating the possibility of manufacturing welded tube
blanks for cold forming. Proizv. trub no.11:67-72 '63.

(MIRA 17:11)

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCESSES AND PROPERTIES INDEX																			
3730. ARRANGEMENT OF ELECTRIC DRIVE FOR RUNNING GEAR OF EXCAVATOR Besrodnyi, A.P. (Gornyi Zhurnal (Min. J.), 1949, (8), 17-19). (L).																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										FROM NOMIN									
SUBJECT SYMBOLISM										SUBJECT ONE ONLY LIST									
SUBORD #4										SUBORD ONE ONLY LIST									
SUBORD #4										SUBORD ONE ONLY LIST									

1ST AND 2ND CROISS										1ST AND 2ND CROISS									
PROCESSES AND PROPERTIES INDEX																			
815. ELECTRIC DRIVE FOR CONTINUOUSLY OPERATING EXCAVATORS IN OPENCAST LIGNITE WORKINGS. Besrodnyi, A. P. (Ugol (Coal), 1949, (10), 22-28). Descriptions and wiring diagrams of electrical equipment on large excavators. (L).																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST AND 2ND CROISS										1ST AND 2ND CROISS									
1ST AND 2ND CROISS										1ST AND 2ND CROISS									

REPETIN, A.P., dotsent; BEZRODNYI, A.P., inzh.

Irregularity in the operation of the electric transmission
of proportioning pumps in the nylon spinning machine. Izv.
vys.ucheb.zav.; tekhnolog.prom. no.3:116-122 '59.
(MIRA 12:12)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.
Rekomendovana kafedroy elektrotekhniki i elektrooborudovaniya.
(Spinning machinery) (Nylon)

9(6)

AUTHORS:

Bezrodnyy, A. P., Engineer,
Fedorenko, V. A., Engineer

SOV/119-59-4-14/18

TITLE:

An Electric Coal Level Indicator in an Adsorption
Tower (Elektronnyy signalizator urovnya uglya v
kolonne adsorbera)

PERIODICAL:

Priborostroyeniye, 1959, Nr 4, pp 28-29 (USSR)

ABSTRACT:

Such a device must comply with the following requirements:
1) The resistance R_s of the signal electrodes, at which the
operation of the generator is stopped, must not exceed 100
ohms. 2) The second requirement arises from the stipulations
of safety engineering: The potential between the signal
electrodes must not exceed 1.5 v, and an rms value of
1.07 v for d. c. and a. c., respectively. 3) The device must
provide for stable operation and the connection of leads
with a length of 50 m must be possible (between the signalizer
and the electrodes). In the Laboratory for Automation of the
Kiyevskiy filial instituta Giprottransneft' (Kiyev Branch of
the State Institute for the Design and Planning of Structures,
Transportation and Storage in the Petroleum Industry) a level

Card 1/3

An Electric Coal Level Indicator in an Adsorption
Tower

SOV/119-59-4-14/18

indicator complying with these conditions was developed and tested under laboratory conditions. The circuit of this signalizer consists of 2 oscillators with vacuum tubes of the type 6Zh4, of amplifier cascades with tubes 6N8 and of a supply unit. The device can be tuned by the following methods: 1) shunting of the oscillation circuit with an active resistance ($\sim 20,000$ to $100,000$ ohms). 2) Successive introduction of an active resistance R_d (~ 30 ohms) into the circuit of the feedback coil. 3) Introduction of a ferromagnetic core into the interior of the coil of the high-frequency transformer. It was readily seen from the experiments that the circuit can be tuned most simply by the second method. Automobile spark plugs with somewhat extended electrodes are best suited as signal electrodes. The performance of the oscillators can be controlled by tumblers. In this circuit electromagnetic d. c. relays of the type MKU-48 were used, which are supplied from a 220 v source. It is not advisable to supply this oscillator with a. c. The oscillator was d. c. fed through a germanium

Card 2/3

An Electric Coal Level Indicator in an Adsorption
Tower

SOV/119-59-4-14/18

rectifier diode of the type DG-Ts27 and a filter element. This level indicator takes only about 30 w from the power supply. It is suited not only to the control of the coal level in an adsorption tower, but also for the control of other substances with an explosion hazard. Moreover it can be used as an element in circuits of automatic control. There are 2 figures.

Card 3/3

BEZRODNYI, Aleksandr Petrovich

Concerning the use of dynamic capacitance for smooth regulation of an electric drive. Izv.vys.ucheb.zav.; elektromekh. 4 no.8:81-88 '61. (MIRA 14:8)

1. Ispolnyayushchiy obyazannosti dotsenta kafedry elektro-tekhniki i elektrooborudovaniya Kiyevskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Electric driving)

BEZRODNYI, A. P.

S/121/62/000/010/005/005
D040/D112

AUTHOR: None given

TITLE: Dissertations

PERIODICAL: Stanki i instrument, no. 10, 1962, 44

TEXT: The following dissertations for the degree of Candidate of Technical Sciences were presented: L.D. Adamovich, at the Voenno-inzhener-naya krasnoznamennaya akademiya im. V.V. Kuybysheva (Military Engineering "Red Banner" Academy im. V.V. Kuybyshev), "Some Aspects of the Geometry of Helical Surfaces"; G.A. Andreyev, at the VNII zh.-d. transporta (VNII of RR Transportation), "Investigation of the Contact Formation Between Rough Sur-faces"; A.V. Baltrushevich, at the Vsesoyuznyy ordena Trudovogo Krasnogo Znameni NII elektromekhaniki (All-Union "Order of the Red Banner of Labor" NII of Electromechanics), "Investigation of a Digital Servo System for Con-verting Digits into Movements"; A.P. Bezrodnyy, at the Leningradskiy poli-tekhnikheskiy institut im. M.I. Kalinina (Leningrad Polytechnic Institute im. M.I. Kalinin), "Investigation of the Processes of Stepless Control of Electric Motors in Unstabilized Motion Periods."

~~Card 1/3~~

BEZRODNYI, Aleksandr Petrovich, dotsent

Calculation of the smooth regulation of an electric drive using a system consisting of a generator and motor. Izv.vys.ucheb.zav.; elektromekh. 5 no.1:83-90 '62. (MIRA 15:2)

1. Kafedra elektrotekhniki i elektrooborudovaniya Kiyevskogo tekhnologicheskogo instituta legkoy promyshlennosti. (Electric driving)

BEZRODNYI, F.S.

Drug Trade-costs

Production costs should be lowered in every way possible
Med. prom. no. 2, 1952

GOFMAN, I.N., inzh.; BEZRODNYI, G.A., inzh.

Automation of the preparation of the regenerative salt solution.
Energetik 10 no.10:8-9 0 '62. (MIRA 15:12)
(Automatic control) (Chemical apparatus)

VOLGIN, M.A., inzh.; BEZRODNYI, G.A., inzh.; LEKUS, L.P., inzh.

Automation of fuel supply systems in the Novokemerovsk Thermal
Electric Power Plant. Elek. sta. 34 no.6:78-80 Je '63.
(Electric power plants) (Fuel) (MIRA 16:9)

CHENKIN, A.F.; BEZRODNYI, G.P.; KALASHNIKOV, K.Ya., kand.sel'skokhozyayst-
vennykh nauk

Responses to our articles. Zashch. rast. ot vred. i bol. 7 no.3:
18-19 Mr '62. (MIRA 15:11)

1. Zamestitel' nachal'nika Upravleniya zashchity rasteniy
Ministerstva sel'skogo khozyaystva RSFSR (for Chenkin). 2. Nachal'nik
Volgogradskoy ekspeditsii po bor'be s vreditelyami sel'skokhozyayst-
vennykh rasteniy (for Bezrodnyy).
(Plants, Protection of)

BEZRODNYI, G.P. (Volgograd)

Practices in applying chlorophos to grain crops. Zashch.
rast. ot vred. i bol. 7 no.2:19-20 F '62. (MIRA 15:12)

1. Nachal'nik Volgogradskoy ekspeditsii po bor'be s
vreditelyami sel'skokhozyaystvennykh rasteniy.
(Chlorophos)

(Volgograd Province--Grain--Diseases and pests)

BEZRODNYI, G.P.; MOROZOVA, A.M.

Our practices in grain crop protection. Zashch. rast. ot vred. i
bol. 8 no.2:18-19 F '63. (MIRA 16:7)

1. Nachal'nik Volgogradskoy ekspeditsii (for Bezrodnyy). 2. Glavnyy
agronom Volgogradskoy ekspeditsii (for Morozova).
(Volgograd Province--Grain--Diseases and pests)
(Volgograd Province--Spraying and dusting in agriculture)

BEZRODNYI, G.P.

Higher grain yields for the country. Zashch. rast. ot vred.
i bol. 8 no.3:5-6 Mr '63. (MIRA 17:1)

1. Nachal'nik Volgogradskoy stantsii zashchity rasteniy.

L'VOV, I.A.; BEZRODNYI, N.I.

Experience in the operation of thermal cracking devices.
Nefteper. i neftekhim. no.2:3-7. '63. (MIRA 17:1)

1. Ryazanskiy neftepererabatyvayushchiy zavod.

BEZRODNYI, I. YE.

Bee culture - Equipment and supplies

A use for a wax diaphragm

Pchelovodstvo 29, no;1, 1952

BEZHODNYY, Pavel Porfir'yevich; SHULEYKIN, P.A., red.

[From foreign practices; about agriculture in Denmark, Sweden, and Norway] Iz zarubezhnogo opyta; o sel'skom khoziaistve Dani, Shvetsii i Norvegii. Moskva, Znanie, 1964. 79 p. (Narodnyi universitet: Sel'skokhoziaistvennyi fakul'tet, no.10) (MIRA 17:12)

L 18463-66 EWT(d)/EWT(m)/EWP(f)/T WE
ACC NR: AP6006394

SOURCE CODE: UR/0413/66/000/002/0140/0140

INVENTOR: Bezrodnyy, V. A.

ORG: none

TITLE: An automatic float-type air and gas separator for the fuel system in an internal combustion engine. Class 46, No. 178240

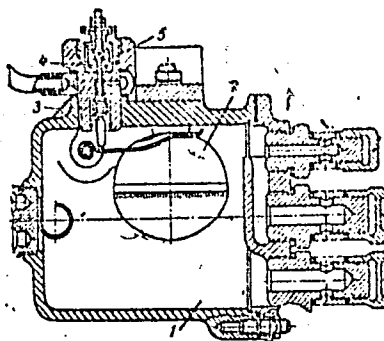
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 140

TOPIC TAGS: internal combustion engine, engine fuel system

ABSTRACT: This Author's Certificate introduces an automatic float-type air and gas separator for the fuel system of an internal combustion engine. The unit contains a housing with a float which operates an air discharge valve when the fuel reaches a limiting level. Failures in the system are indicated by an alarm system controlled by contacts which are closed by the float through the valve rod when the fuel falls below the limiting level.

Card 1/2

L 18463-66
ACC NR: AP6006394



1 - housing; 2 - float; 3 - air discharge valve; 4 - con-
tacts; 5 - valve rod.

SUB CODE: 21,13/ SUBM DATE: 18Feb63

Card 2/2 ✓C

NEYMARK, M.Ye.; BEZRODNYI, V.I.

Syringe for injecting the sample into the chromatograph. Zav.lab. 30
no.12:1519-1520 '64. (MIRA 18:1)

1. Ukrainskiy nauchno-issledovatel'skiy uglekhimicheskiy institut.

BONDAR', A.N.; KIRDA, M.S.; BEZRODNYI, V.I.

Tie fastening with wooden screws. Put' i put. khoz. 9 no.11:15
'65. (MIRA 18:11)

1. Nachal'nik Darnitskoy distantzii Yugo-Zapadnoy dorogi
(for Bondar'). 2. Starshiy inzh. Darnitskoy distantzii
Yugo-Zapadnoy dorogi (for Kirda). 3. Nachal'nik mekhaniziro-
vannogo uchastka Darnitskoy distantzii Yugo-Zapadnoy dorogi
(for Bezrodnyy).

BEZROGOVA, Ye. V.

Separate determination of hydrofluoric, sulfuric and fluorilic acids in their mixture. Zhur. anal. khim. 19 no. 12: 1498-1502 '64
(MIRA 18:1)

1. V.I. Vernadsky Institut of Geochemistry and Analytical Chemistry, Academy of Sciences of the U.S.S.R., Moscow.

88581

21.3000

S/075/61/016/001/010/019
B013/B055

AUTHORS: Paley, P. N. and Bezrogova, Ye. V.

TITLE: Spectroscopic Determination of Beryllium Traces in Uranium

PERIODICAL: Zhurnal analiticheskoy khimii, 1961, Vol. 16, No. 1, pp. 57-59

TEXT: The present publication describes a method of determining $10^{-6}\%$ of beryllium in uranium. The first step consists of separating the beryllium traces from the uranium. Of various known methods of separating beryllium from uranium, the chromatographic separation on a cationite using various complexing agents is the most promising (Refs. 14-17). The authors determined the optimum conditions for the separation. Separation is satisfactory on a KY-2 (KU-2) cationite with 0.25 mm grain size. Beryllium comes off the column with a sulfosalicylic acid solution, the most suitable rate of elution being 0.5 ml/min. The quantity of exchange resin used is of great significance. A 10-mm diameter column must contain at least 10 g of KY-2 (KU-2) resin in the air-dry state per 1 g of sample. One of the determining factors of separation is the pH of the wash-out solution which should be 3. Deviations are permissible only towards smaller values. The possibility of

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Spectroscopic Determination of Beryllium
Traces in Uranium

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B013/B055

completely separating was tested using uranium solutions containing between 10^{-2} and $10^{-3}\%$ of beryllium. The results obtained were satisfactory (Tab. 1). To determine smaller quantities of beryllium, the latter not only must be separated from uranium, but also must be concentrated. Two series of beryllium determination experiments were carried out, the one using the fluorescence of beryllium, the other employing spectral analysis. The fluorescence method was found to be unsuitable. Basing on results obtained by spectroscopic analysis (Tab. 2), the authors suggest a combined method for determining beryllium in uranium down to $10^{-6}\%$ beryllium, consisting in chromatographic enrichment of beryllium and subsequent spectroscopic analysis. The time required for one analysis is ~ 40 h. The error is $\pm 20\%$. There are 2 tables and 17 references: 6 Soviet, 2 Dutch, 2 Swiss, 3 US, 1 Austrian, 1 Japanese, and 2 Czech.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im.
V. I. Vernadskogo AN SSSR, Moskva (Institute of Geochemistry
and Analytical Chemistry imeni V. I. Vernadskiy of the
Academy of Sciences USSR, Moscow)

SUBMITTED: July 13, 1959
Card 2/2

BECHERON, A.M., GONFLEMAN, Ph.D. (Vinnitsa)

Machine for printing fabric-made commercial labels. (Invent.
prom. no.4331-33 U-Ag '65. (MIRA 18:9)

BEZRUC, Frantisek

Maintenance in metallurgic works and the economy. Prace
mzda 11 no.10:470-476 0 '63.

1. Vedouci technickeho normovani, Nova hut Klementa
Gottwalda, n.p., Kuntice.

BEZRUC, Frantisek

Organization and aim of standardization in metallurgical enterprises. Prace mzda 12 no.10:462-466 0 '64.

1. Nova hut Klementa Gottwalda National Enterprise,
Ostrava-Kuncice.

BURMISTROV, N.A.; KOROBAYNIKOVA, A.D.; KHATSKEVICH, V.S.; SOSIN, M.A.;
OSOKINA, K.I.; BOZHKO, V.S.; MOSKALEV, I.A.; GOGIN, N.M.;
DANILKINA, V.I.; BEZRUCHENKO, I.Ya.

Experience in competing for the right to be called an enterprise
of communist labor. Vest. svyazi 21 no.11:22-25 N '61.

(MIRA 14:11)

1. Nachal'nik Pervomayskoy kontory svyazi g. Moskv (for Burmistrov).
2. Nachal'nik otdeleniya svyazi Kupino, Shebekinskogo rayona, Belgorodskoy obl. (for Korobeynikova).
3. Nachal'nik Noginskoy rayonnoy kontory svyazi Moskovskoy obl. (for Khatskevich).
4. Nachal'nik Teykovskoy kontory svyazi Ivanovskoy obl. (for Sosin).
5. Nachal'nik 16-go otdeleniya svyazi Dzerzhinska, Gor'kovskoy obl. (for Osokina).
6. Nachal'nik Sovetskoy kontory svyazi Kaliningradskoy oblasti (for Bozhko).
7. Nachal'nik Sovetskoy kontory svyazi Kurskoy obl. (for Moskaev).
8. Nachal'nik Kanavinskoy kontory svyazi g. Gor'kogo (for Gogin).
9. Nachal'nik Shchelkanovskogo otdeleniya svyazi Yukhnovskogo rayona, Kaluzhskoy obl. (for Danilkina).
10. Nachal'nik Bobrovskoy rayonnoy kontory svyazi Voronezhskoy oblasti (for Bezruchenko).

(Telecommunication--Employees)

BEZRUCHENKO, A.N.

Goiter

Cases of goiter of the lingual root
Vest. oto-rin. 14, no. 4, 1952

AKSENOV, N.N.; BARSOV, I.P.; BARSUKOV, F.D.; BEZRUCHENKO, I.P.; BUROV, D.T.;
 BURLYAY, A.A.; VASIL'YEV, G.I.; VOSTOKOV, Ye.I.; GOLOV, M.A.;
 IL'IN, M.M.; KAMSYUK, S.A.; KOLESOV, A.N.; KOPOTEV, A.N.; LEVITAN,
 S.D.; LYSOY, G.B.; LYAL'CHUK, V.K.; L'VOV, N.A.; LYAPUNOVA, A.I.;
 MISHKOV, K.V.; NASTYUKOV, G.A.; NIGOF, V.N.; PESKOV, K.A.;
 PERFIL'YEV, A.P.; SARUKHANYAN, R.L.; SIDORKOV, I.A.; SMIRNOV, A.N.;
 SURIN, P.I.; SYSOYEV, V.D.; TISHCHENKO, A.A.; FILIPPOV, G.P.;
 FOMICHEV, A.M.; YAKOVLEV, I.P.; MURAV'YEV, A.I., polkovnik, red.;
 ZUDINA, M.P., tekhn.red.

[Service clubs; a practical reference book] Klub voinskoi chasti
 (korablia); spravочно-metodicheskoe posobie. Moskva, Voen.isd-vo
 M-va obor.SSSR, 1961. 342 p. (MIRA 14:4)

1. Russia (1923- U.S.S.R.) Glavnoye politicheskoye upravleniye
 Sovetskoy Armii i Voenno-Morskogo Flota. Upravleniye propagandy
 i agitatsii.

(Soldiers--Recreation)

BEZRUCHENKO, K. Z.

Bezruchenko, K. Z.

"The Development of Early Varieties of Grapes (the European Species) under the Conditions of the Don River." Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev. Moscow, 1955 (Dissertation for the degree of Candidate in Biological Sciences)

SO: Knizhnaya letopis' No. 27, 2 July 1955

ACC NR: AT6026769

SOURCE CODE: UR/2754/66/000/005/0071/0084

AUTHOR: Bezruchenko, L. I.; Makarov, G. I.

ORG: none

TITLE: Propagation of a pulse signal in the Epstein ionospheric layer

SOURCE: Leningrad. Universitet. Problemy difraktsii i rasprostraneniya voln, no. 5, 1966. Rasprostraneniye radiovoln (Radio wave propagation), no. 4, 71-84

TOPIC TAGS: signal propagation, ionospheric propagation, ionospheric electron density, ionospheric radio wave

ABSTRACT: The Epstein model of the ionosphere was used in the present study because large gradients in the dielectric constant are permissible and a unique solution can be obtained for the field over the entire region. The existence of an exact solution is shown for the problem of the propagation of a pulsed signal in an Epstein ionosphere, assuming that electron concentration is a continuous function of altitude. The effect of damping due to collisions is discussed briefly. The material of this article is part of a dissertation by L. I. Bezruchenko under the direction of G. I. Makarov. Orig. art. has: 1 figure, 51 formulas.

SUB CODE: 04,17/

SUBM DATE: none/

ORIG REF: 005/

OTH REF: 007

Card 1/1

YEGOROVA, A.G.; KAZANSKAYA, L.N.; SEMIDT, E.I.; LEFASHOVA, Ye.V.;
BEZRUCHENKO, I.P.

[New strains of lactic acid bacteria for rye leaven preparation] Novye shtammy molochnokislykh bakterii rzhanykh zakvasok. Moskva, TSentr. inst. nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 34 p. (MIRA 17:8)

PLCTNIKOV, P.M.; KAMENSKAYA, L.N.; BESHALOVA, G.I.; BEZRUCHENKO,
L.M.; SPASIL'NIKOVA, Ye.Ye.; SHCHERBACH, V.A.; BROTEIN,
S.L., spets. red.

[Use of liquid intermediate products in the making of wheat
flour bread] Primenenie zhidkikh polufabrikatov pri proiz-
vedstve pshenichnykh sortov knieba. Moskva, TSentr. in-t
nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 39 p.
(KINA 18:5)

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCESSES AND PROPERTIES INDEX																			
BC B-III-1 Growth of rice fallows on the second year of plant- ing under continuous treatment flooding in formerly submerged soils of Kuban. B. N. Tsv- NAYA and M. A. Buzovskaya (North Caucasian Grain Inst. Coll. Sci. Papers, 1954, No. 1, 88-104).—Germina- tion and seedling development were injured as a result of utilization of dissolved O_2 by <i>S. litorea</i> in rice soils. No relationship exists between the pH and the injurious action of these soils. Can. Ana. (p)																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
SOURCE SYMBOLS										SUBJECTS									
SOURCE SYMBOLS A B C D E F G H I J K L M N O P Q R S T U V W X Y Z										SUBJECTS A B C D E F G H I J K L M N O P Q R S T U V W X Y Z									

BEZRUCHENKO, N. Z.

BEZRUCHENKO, N. Z. "Investigations of certain dangers arising from the underground of Soviet Orlast", Sbornik nauch.-issled. rabot (Azov-Chernom. m. o.-kr. in-t), XII, 1948, p. 99-110, - Bibliog: 8 items.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

BEZRUCHENKO, N.Z.

Infestation of sainfoin with dodder. Bot.zhur.40 no.3:432-433
My-Je '55. (MLRA 8:10)

1. Azovo-Chernomorskiy sel'skokhozyaystvennyy institut, st.
Persianovka, Rostovskoy oblasti
(Sainfoin) (Dodder)

BEZRUCHENKO, N.Z.; CHUKERIN, N.N.

Ragweed (*Ambrosia artemisiifolia* L.). Bot.zhur. 41 no.5:712-713
My '56. (MLRA 10:7)

1. Azovo-Chernomorskiy sel'sko-khozyaystvennyy institut,
st. Persianovka, Rostovskoy oblasti.
(Ragweed)

Bezruchenko, N.Z.

USSR /Chemical Technology. Chemical Products
and Their Application

I-10

Pesticides

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31346

Author : Bezruchenko N.Z.

Inst : Azov - Black Sea Agricultural Institute

Title : Chemical Methods for the Control of Dodders

Orig Pub: Sb. nauch.-issled. rabot Azovo-Chernomor. s.-kh.
in-t, 1956, 14, 115-123

Abstract: 2,4-D and 2M-4X, at concentrations of 0.2 and
0.3%, kill 85-90% of dodder parasitizing orach,
knot weed, lettuce, camomile, etc.

Card 1/1

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.

USSR /Chemical Technology. Chemical Products
and Their Application

I-10

Pesticides

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31347

Author : Bezruchenko N. Z., Chukarin N. N.

Inst : Azov - Black Sea Agricultural Institute

Title : Chemical Methods for the Control of Ragweed

Orig Pub: Sb. nauch.-issled. rabot Azovo-Chernomor. s.-kh.
in-t, 1956, 14, 125-134

Abstract: To control ragweed tests were carried out with
Na-salt of 2,4-D (I), I with addition of OP-7,
and with butyl ester of 2,4-D (II). I gave better
results, in comparison with II. Use of I with a
wetting agent is of no particular advantage.

Card 1/1

USSR / Weeds and Weed Control.

27

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 1934

Author : Bezruchenko, N. Z.

Inst : Azovo-Chernomorsk Agricultural Institute

Title : An Experiment on the Application of Preparation
No. 39 for Extermination of Common Ragweed
(*Ambrosia artemisiifolia* L.) and Greater
Dodder (*Cuscuta campestris* Juncker)

Orig Pub : Sb.: nauchno-issled. rabot. Azovo-Chernomorsk.
c.-kh. in-t, 1957, 15, 227-235

Abstract : During 1955-1956 on unoccupied lands in the
Rostovskaya Oblast' preparation No. 39 (I), a
waste product of industrial enterprises of that
area, was tested. A 100% extermination of rag-
weed and dodder was accomplished using a

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USSR / Weeds and Weed Control.

N

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 1934

standard of 2 liters per 10 m² of treated
surface. It acted as a herbicide with contact
action. -- L. D. Stonov

Card 2/2

BEZRUCHENKO, N.Z.

Heterophylly in *Pyrus communis* L. s.l. Bot.zhur. 43 no.10:1485-1488
O '58. (MIRA 11:11)

1. Azovo-Chernomorskiy sel'skokhozyaystvennyy institut, st. Persia-
novka Rostovskoy oblasti.

(Pear)

(Leaves)

KALININ, Aleksandr Nikolayevich,; CHUVICHKIN, Sergey Pavlovich,; BEZHUCHENKO,
S.F., red.; ALEKSANDROV, L.A., red. izd-va,; TIKHONOVA, Ye.A., tekhn. red.

[Auxiliary machinery of ships] Sudovye vspomogatel'nye mekhanizmy.
Moskva, Izd-vo "Morskoi transport," 1957. 209 p. (MIRA 11:12)
(Ships--Equipment and supplies)

AUTHOR: Bezruchenko, V.N., Engineer

110-58-6-19/22

TITLE: Calculation of the Overhang of the End-windings of
Commutator-machine Armatures (Raschet vyletov lobovykh
chastey obmotok yakorey kollektornykh mashin)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, . . . Nr 6,
pp 68 - 69 (USSR).

ABSTRACT: When space is limited, it may be necessary to calculate the overhang of the end-windings of commutator-machine armatures before the complete section is designed. The existing approximate method is inaccurate and the complete geometrical calculation is laborious, whereas the method now recommended is quick and accurate. A formula is derived for the length of overhang, which consists of three parts, two in line with or parallel to the slot and the other sloping. A worked example is given. There are 2 figures.

ASSOCIATION: Novocherkasskiy elektrovostroitel'nyy zavod
(Novocherkassk Electric Locomotive Works)

SUBMITTED: January 15, 1958

Card 1/1

1. Armature coils--Design 2. Commutators--Equipment

AUTHOR: Bezruchenko, V.N., Engineer SOV/144-58-8-10/18

TITLE: Technico-economic Indices of DC Traction Motors as a
Function of the Rated Voltage (Tekhniko-ekonomicheskiye
pokazateli tyagovykh dvigateley postoyannogo toka v
zavisimosti ot nominal'nogo napryazheniya)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika,
1958, Nr 8, pp 78 -- 84 (USSR)

ABSTRACT: According to calculations and practical experience of
manufacturers of traction motors, the saving in weight by
using 6-pole motors as compared with using 4-pole motors
varies between 700 and 900 kg, depending on the rating
of the motor. In this paper, the author investigates the
geometrical parameters of the motor, the influence of the
thickness of the slot insulation on the degree of utili-
zation of the active layer of the armature and also the
weight and cost indices and the efficiency values. In
his investigations the author considered motors of ratings
of the order of 650 kW with voltages between 750 and
1 500 V. The following conclusions are arrived at: for
reducing to a minimum the weight of traction motors, the
armature of the motor should have the smallest possible

Card1/2

SOV/144-58-8-10/18
Technico-economic Indices of DC Traction Motors as a Function of the
Rated Voltage

diameter; the metal costs (ferrous and non-ferrous) of traction motors of a given power remain practically the same for motors of differing voltages; the insulation costs of a motor of a certain power rating change in proportion to the voltage. Therefore, the change in the costs of the motor of a given power rating at various voltages depends solely on the changes in the cost of the insulation. There are 3 figures, 2 tables and 3 Soviet references.

ASSOCIATION: Novosherkasskiy elektrovostroitel'nyy zavod
(Novosherkassk Electric Locomotive Works)

SUBMITTED: July 12, 1958
Card 2/2

LOVINSKY, S.P., and. 6-19-63. New York City, and. 6-19-63.
BRISCHENKO, V.B., and. 6-19-63. New York City, and. 6-19-63.

Principal results of stationary tests of industrial 1400 and
VICOM electric locomotives. New York City. PWT no. 59-170-018
'63.

(MIRA 18-4)

BEZRUCHENKO, Valerian Nikolayevich

Making equalizer connections. Izv. vys. ucheb. zav.; elektromekh.
3 no.10:133-136 '60. (MIRA 14:4)

1. Glavnyy inzhener Spetsial'nogo konstruktorskogo byuro Dnepropetrov-
skogo elektrozostroitel'nogo zavoda.
(Electric machinery)

DEKRETOV KO, GRIGOR'YEV, Ye.T.; MATUSEVICH, S.B.

Four-axle D100M a.c. electric locomotive. Elek. i topl.
tiaga 5 no.5:7-11 My '61. (NIRA 14:7)

1. Spetsial'noye konstruktorskoye byuro Dnepropetrovskogo
elektrovozostroitel'nogo zavoda (for Bezrukov). 2. Nachal'
chal'nik otдела mekhanicheskoy chasti Spetsial'nogo konstruktorskogo
byuro Dnepropetrovskogo elektrovozostroitel'nogo zavoda (for
Grigor'yev). 3. Nachal'nik proyektno-montazhnogo otдела
Spetsial'nogo konstruktorskogo byuro Dnepropetrovskogo
elektrovozostroitel'nogo zavoda (for Matusevich).
(Electric locomotives)

BEZRUCHENKO, V.N.

The D-100^m industrial electric a.c. locomotive. Biul.tekh.-eksp.
inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.9:68-71
'62. (MIRA 15:9)
(Electric locomotives)

BEZRUCHENKO, Ye.G.

Streptomycin therapy for chronic pulmonary tuberculosis. Voen.-med.
zhur. no.9:18-25 S '51. (MLRA 9:9)

(STREPTOMYCIN) (TUBERCULOSIS)

KOREYEV, I.F.; VZNUZDAYEVA, A.N.; BEZRUCHENKO, Z.A., mashinist-operator

In the merchant shape rolling mill at the Kuznetsk Metallurgical Combine. Metallurg 7 no.8:34 Ag '62. (MIRA 15:9)

1. Sekretar' partiynogo byuro Kuznetskogo metallurgicheskogo kombinata (for Koreyev). 2. Predsedatel' tsekhovogo komiteta sortoprokatnogo tsekha Kuznetskogo metallurgicheskogo kombinata (for Vzmuzdayeva). 3. Brigada No.1 stana 250 Kuznetskogo metallurgicheskogo kombinata (for Bezruchenko).
(Novokuznetsk—Rolling mills)

MELYUBOV, A.I., inzhener; ~~BEZHUCHKIN~~, I.P., kandidat tekhnicheskikh nauk.

Machine for drying green forage, preparing hay meal and making it
into briquets. Sel'khoz mashina no.4:3-7 Ap '56. (MLRA 9:7)
(Hay) (Agricultural machinery)

BEZRUCHKIN, I.P., kand. tekhn. nauk

Investigating the process of briquetting hay meal. Trakt.
i sel'khozmasb. no.2:15-19 P '58. (MIRA 12:3)
(Hay--Storage)

LAYKHTER, E.G.; CHUMAK, A.V., inzh., red.; BEZRUCHKIN, I.P., kand.tekhn.
nauk, red.; ZANIN, A.V., kand.tekhn.nauk, red.; ZVOLINSKIY, N.P.,
inzh., red.; IVANOV, I.S., inzh., red.; KLETSKIN, M.I., inzh., red.;
PETROV, G.D., kand.tekhn.nauk, red.; PUSTYGIN, M.A., doktor tekhn.
nauk, red.; RABINOVICH, I.P., kand.tekhn.nauk, red.; RUDASHEVSKIY,
D.Sh., kand.tekhn.nauk, red.; SINEOKOV, G.N., doktor tekhn.nauk, red.;
SYSOYEV, N.I., kand.tekhn.nauk, red.; FEDOROV, V.A., inzh., red.;
CHAPKEVICH, A.A., kand.tekhn.nauk, red.; PONOMAREVA, A.A., tekhn.red.

[Bibliographic manual on tillage machinery and implements] Biblio-
graficheskiy spravochnik po pochvoobrabatyvaiushchim mashinam i oru-
diam. Moskva, Gosplanizdat. No.2. [Literature in the Russian
language from 1730-1955] Literatura na russkom iazyke za 1730-1955 gg.
Pod red. G.N.Sineokova. 1959. 263 p. (MIRA 13:9)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'sko-
khozyaystvennogo mashinostroyeniya.
(Bibliography--Agricultural machinery)

BEZRUCHKIN, I.P., kand.tekhn.nauk

"Nankin-105V" rice planter. Trakt. i sel'khoz mash. 32 no.2:
47-48 F '62. (MIRA 15:2)
(Planters (Agricultural machinery))
(Rice)

BEZRUCHKO, A.A.

Materials on the bottom fauna of the Molochnyy Liman. Nauch.
dokl.vys.shkoly; biol.nauki no.2:28-31 '63. (MIRA 16:4)

1. Rekomendovana kafedroy zoologii Melitopol'skogo
pedagogicheskogo instituta.
(MOLOCHNOYE, LAKE—FRESHWATER FAUNA)

BEZRUCHKO, I.

Dairying

Obligations of butter and cheese makers
Mol. prom 13, no. 4, 1952

RE: LUDSKY, I. I.

DEBYUCHKO, I. I. -- "DETERMINATION OF THE HEATING TIME OF FORGING BLANKS FROM CARBON
STEEL DURING INDUCTION HEATING." 201 20 MAY 55, MOSCOW ORDER OF LADY GLEN LADNE
HIGHER TECHNICAL SCHOOL IMENI BAUMAN (DILBERTATION FOR THE DEGREE OF CANDIDATE IN
TECHNICAL SCIENCES)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1955

BEZRUCHKO, I. I.

Subject : USSR/Engineering AID P - 4317
Card 1/1 Pub. 128 - 17/26
Author : Bezruchko, I. I., Kand. Tech. Sci
Title : Induction heating of aluminum and cupronickel
(copper-zinc-nickel alloy) (German silver or nickel
silver).
Periodical : Vest. mash., #3, p. 59-60, Mr 1956
Abstract : For the automatic process of heat treatment by pressure
(pressing or forging), it is suggested that the heating
of treated parts be done not in electric furnaces but by
induction methods. The tests were made with aluminum and
nickel-silver. Chart, table.
Institution : None
Submitted : No date

Induction heating of blanks of heat-resistant alloy
El137 for drop forging. I. I. Pechenko, Ya. M. Ditya-
kovskii, and M. S. Aizikovich. *Metalloved. i Obrabotka*
Metal. 1956, No. 4, 59-60. Blanks 52 mm. in diam. and
187 mm. long were heated in an inductor 65 mm. in diam.
and 1070 mm. long consisting of 99 turns of Cu tubing. The
2500-cycle generator had a capacity of 100 kw. The blanks
were to be heated to $1100^{\circ} \pm 10$ with variations of not
more than $\pm 10^{\circ}$. Insulating tubes of mica, asbestos,
and fireclay, 2, 3, and 6 mm. in diam., resp., were nested
inside the inductor and outside of the blank being heated.
The inductor was unsoldered at the center to permit the two
halves to be connected in parallel and thus keep $\cos \phi$ near 1.
The surface temps. were detd. by using three suitably spaced
Pt-PtRh thermocouples and a 4th couple was at the center,
15 mm. in from one end. At a specific power of 0.031
kw./sq. cm. and with the blank advanced $\frac{1}{2}$ of the distance
through the inductor every 33 sec., the blank reached 1100°
to within about 10 or 12° at the end of the inductor. The
temp. at the center lagged about 75° behind the surface
during most of the heating period, but within 3 sec. after
removal of the blank from the inductor, the center temp.
was nearly the same as that of the surface. The elec.
energy for heating was 0.50 kw.hr./kg. The grain size of
the blanks was 5 to 6 compared to the 3 to 4 grain size
produced by conventional heating. A. C. Guy.

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 219 (USSR)
SOV/137-59-1-1651

AUTHORS: Bezruchko, I. I., Dityatkovskiy, Ya. M., Ayzikovich, M. S.

TITLE: Advanced Stamping Technology Employs Induction Heating
(Peredovaya tekhnologiya shtampovki s primeneniym induktsionnogo nagreva)

PERIODICAL: V sb.: Novoye v kuznechno-shtampovoch. tsekhakh Leningrada
Leningrad, 1958, pp 78-88

ABSTRACT: The employment of the method of induction heating of blanks in the forging shop made it possible to change over to a more rational technology involving simultaneous stamping of two forgings of the locking crown of a drum in a 1000-ton press with an insert die having two finishing impressions. The high economic efficiency of combining operations of stamping in a press with induction heating of blanks is pointed out. A computation of the economic indices of the new technology is presented and the layout of the working area is described; two induction-heating devices employed in the heating of blanks and hardening of the forging of the locking crown of a drum are also described.

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AUTHOR: Bezruchko, I.I.

TITLE: Induction Heating of Tubular Blanks From Ferromagnetic Materials

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, 1960, No. 6, pp. 35 - 39

TEXT: The described experimental investigation has been carried out because of the high effectiveness of induction heating as a means for local heating necessary in bending and upsetting of tubular blanks. Tube blanks of "45" steel were used in the experiments with 90 mm in diameter, 250 mm long and a wall thickness of 18, 12 and 6 mm. The wall thickness (s) was selected corresponding to the penetration depth of electric current with a given frequency into heated steel (δ_{op} , for " δ_{hot} ") at the Curie point (768°C). Maximum heating temperature was $1,250^{\circ}\text{C}$. The inductor length was taken equal to the blank length plus 2 blank diameters (Formula 1). The penetration value " δ_{hot} " for "45" steel is 12 mm. Heating was so controlled that in tubes with 18 and 12 mm wall thickness the hot-test point was at 6 mm under the surface at a 2,500 c/s frequency. It was stated that in tube blanks with such a diameter and δ_{hot} the heat distribution in the wall thickness can only be such as shown in Figure 4 when 2,500 c/s is used, and

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Induction Heating of Tubular Blanks From Ferromagnetic Materials

heating of the surface alone is not possible at all. Surface heating would require a frequency of about 10,000 c/s, which is not economical. It was concluded that the heating time is the time needed to heat the point 2 to 1,250°C. Table 2 shows the investigation results, i.e., temperature drop in °C observed in pipe walls; heating time (t) in seconds; useful power transmitted into the blank (P_{usef}) [Abstractor's note: P_{usef} (P_{useful}) is a translation of the Russian $P_{\text{нагр}}$ ($P_{\text{нагревание}}$) in kw; full efficiency (η_u) of the system inductor-blank; current consumption from 50-cycle network (A_c) in kw/hour per kg. As can be seen, the efficiency value (η_u) grows with diminishing pipe diameter at unchanging tube diameter to reach 0.95 or nearly the possible maximum at a wall thickness of 6 mm. This means that when the tube wall thickness equals half the current penetration depth or less, heat is being separated throughout the wall thickness simultaneously and the effect of heat conductivity on heating is fully eliminated, the heating time reduced, and hence the current losses reduced as well. The optimum heat and power values determined show that at η_u near the maximum (0.8 - 0.9) the minimum specific current consumption is 0.44 - 0.46 kw/hour per kg at an optimum temperature drop of 40°C in the tube wall. At such a temperature drop, the heat-

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ing time for 90 mm diameter tubes is 137 sec for an 18 mm wall, 95 sec for 12 mm and 47 sec for 6 mm. To solve the problem for tubes of other diameters and current with other frequencies, the theory of similarity (Refs. 1, 4) can be used, and the change of the linear dimensions (outer tube diameter and wall thickness) expressed by equation $x_1 = nx$ (7). Then, $t_1 = n^2t$; $f_1 = \frac{f}{n^2}$; $P_0' = \frac{P_0}{n}$; (8) where x is the linear tube dimension in cm; t - heating time in sec; f - current frequency in c/s; P_0 - specific power in kw/cm²; n - the similarity coefficient; and x , t , f , P_0 are initial values, i.e., values known from experiments, and the same values with the index "1" are sought for. Blanks from material with other heat conductivity (λ) will require the same heating time. Two practical problems are solved: 1) Finding n , s_1 , t_1 and f_1 for a 180 mm diameter tube, and finding the heating time for a tube of "45" steel with an outer diameter of 9.0 cm and an inner diameter of 7.8 cm. There are 7 figures and 5 references: 4 Soviet, 1 German.

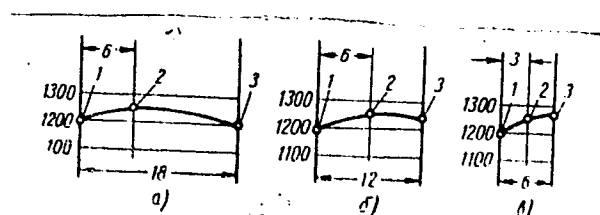
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Fig. 4:



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BEZRUCHKO, I.I.; AYZIKOVICH, M.S.

Determining the time for the induction heating of titanium alloy ingots for working by pressure. Kuz.-shtam. proizv. 5 no.12:27-31 D
'63. (MIRA 17:1)

ACCESSION NR: AP4044285

S/0182/64/000/008/0037/0038

AUTHOR: Bezruchko, I.I., Ayzikovich, M.S.

TITLE: Energy consumption during the induction heating of titanium alloys for hot pressing

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 8, 1964, 37-38

TOPIC TAGS: pressing, titanium alloy, titanium alloy pressing, hot pressing, induction heating, energy consumption/alloy IMP2

ABSTRACT: Induction heating of such metals as titanium and its alloys, which are susceptible to absorption of gases at high temperatures, provides an opportunity for raising the productivity and quality of pressing operations. On the basis of experiments conducted with titanium alloy IMP2, the authors tried to determine the appropriate current frequency and to derive equations for induction coil efficiency, specific electrical energy consumption and specific power as functions of the blank diameter and temperature difference across the blank. In these experiments, blanks 25-70 mm in diameter were induction heated at a frequency of 2500 cycles/sec. The internal diameter of the induction coil was 65-100 mm, and heating was continued to 980C. Temperature changes and

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ACCESSION NR: AP4044285

distributions across the blank section, the temperature and consumption of induction coil cooling water, generator power, and other electrical parameters were recorded during the tests. The hot penetration depth of the heating current was computed from

$$\Delta = 5030 \sqrt{\frac{\rho}{\mu f}} = 1.26 \text{ cm} \quad (1)$$

where the mean resistivity of alloy IMP2 in the temperature range 20-980 C (ρ)

$= 1.57 \times 10^{-4}$ ohm-cm; the magnetic permeability $\mu = 1$; and the current frequency $f=2500$ cps. The findings of the investigation are shown in tables and graphs (see Fig. 1 in the Enclosure). The results showed that the useful specific power during induction heating of titanium alloy blanks having diameters of 25 - 70 mm, and for various temperature differences across the cross section of the blanks, lies in the range 0.007-0.07 kW/cm²; the average specific consumption of useful energy lies in the range 0.160-0.130 kWh/kg, so that the mean specific consumption of electrical energy, assuming correct distribution and a full load on the converters, amounts to 0.3-0.4 kWh/kg. It is concluded that the specific energy

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consumption during induction heating is less for titanium than for carbon steel, and that the average efficiency of the whole system is 0.45-0.47 for the heating of titanium alloys. Orig. art. has 3 figures, 2 tables, and 4 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

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ENCLOSURE: 01

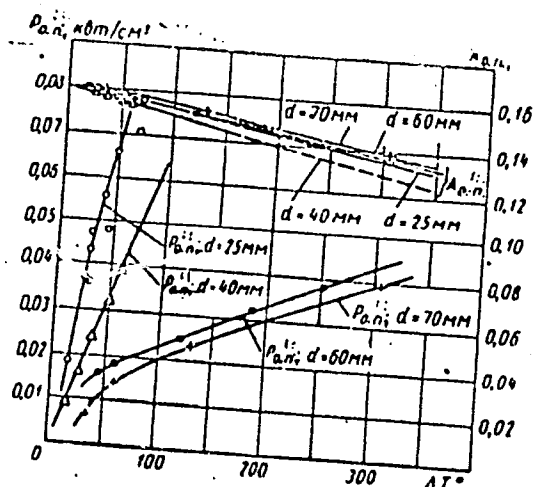


Fig. 1. Specific consumption of useful A_u and specific useful power P_u during induction heating of blanks of different diameter vs. the temperature difference across the blank.

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